

# EPILEPTOLOGY

Automatic FCD detection and rendering\*

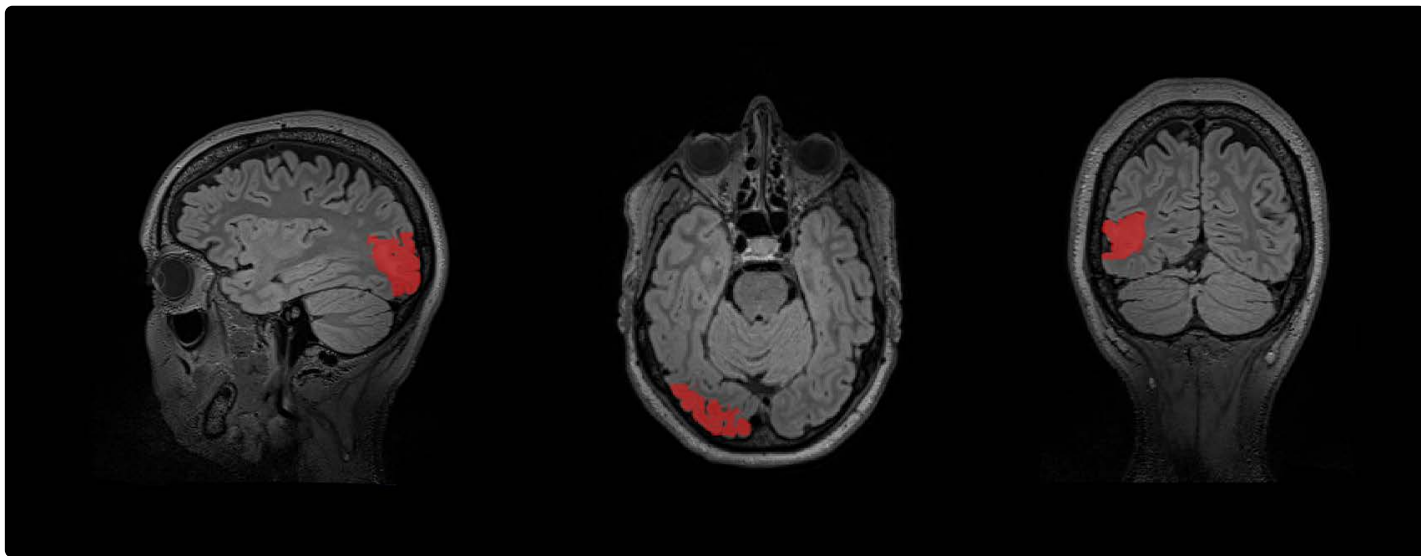


Fig. 1: FCD detection in a two-dimensional MRT before rendering

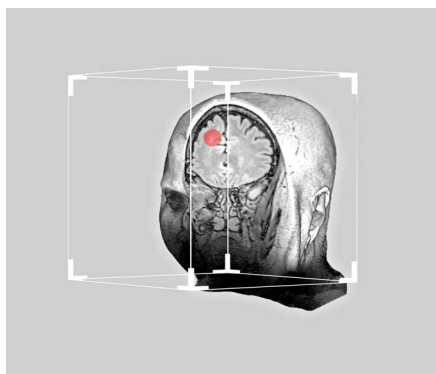


Fig. 2: red-marked Focal Cortical Dysplasia (FCD)

**Case description:** The use of VSI HoloMedicine® accelerates the detection of focal cortical dysplasias (FCDs) in the context of epileptological (etiological and presurgical) diagnostics.

VSI HoloMedicine® examines head MRIs for the presence of FCDs with the help of a special algorithm that is further optimized with every use through artificial intelligence. If an FCD is detected, it is automatically rendered and highlighted in color within the MRI. The rendered MRI can also be used as the basis for surgical planning and assistance for the neurosurgeon.

## Advantages:

- Automation, acceleration and optimization of FCD detection
- Improved orientation by highlighting the FCD
- MRI with detected and rendered FCD can be used for intraoperative planning and implementation

*„The greatest advantage of VSI HoloMedicine® I see is its three dimensionality, something that not even the best 2D screens compete with. Not only do doctors benefit from this, but so do their patients when receiving information prior to an operation.“*

**Dr. Patrick House**  
Epileptologist and Senior Physician at the Hamburg Epilepsy Center  
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**Publikation zur VSI HoloMedicine®:** House PM et al. (2020). Use of the mixed reality tool “Patient Education” for more comprehensible and imaginable patient educations before epilepsy surgery and stereotactic implantation of DBS or stereo-EEG electrodes. Epilepsy Res. 2020 Jan; 159: 106247. doi: 10.1016/j.epilepsyres. 2019.106247. Epub 2019 Nov 26

\*For research and development